

Title (en)
APPARATUS FOR TRANSMITTING STREAMS OF INFORMATION BITS AND METHODS FOR ESTIMATING THE MOST LIKELY SEQUENCE SENT

Publication
EP 0200505 A3 19880914 (EN)

Application
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Abstract (en)
[origin: EP0200505A2] Embodiments of apparatus are described for transmitting a stream of information bits by sending corresponding signals over a channel in a plurality of signalling slots. <??>A family of multi-dimensional convolutionally coded modulation systems achieves enlarged minimum distance between possible sequences of signal points, reduced number of error events with the minimum distance, acceptable peak-to-average power ratio, reduced number of signal points in each constituent two-dimensional constellation, immunity to rapid carrier phase changes, and reduced complexity, resulting in a reduced error probability when maximum likelihood decoding is used. <??>These advantages are achieved by the construction and by the partitioning into subsets of the multi-dimensional constellation, by the design of convolutional codes using those multi-dimensional subsets, by using a bit converter and a block encoder to convert a multi-dimensional constellation mapping into multiple two-dimensional constellation mappings, and by a simplified decoding technique.

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Citation (search report)

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